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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,352	11/19/2001	Norman R. Pallas	39-21 (51844)F MTC 6801	8761
321	7590	07/09/2004	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL			CLARDY, S	
ONE METROPOLITAN SQUARE			ART UNIT	
16TH FLOOR			PAPER NUMBER	
ST LOUIS, MO 63102			1616	

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,352	PALLAS ET AL.	
	Examiner	Art Unit	
	S. Mark Clardy	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7-34,37-44,46-102,105-122 and 126-131 is/are pending in the application.
- 4a) Of the above claim(s) 27,64,80 and 122 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-26,28-34,37-44,46-63,65-79,81-102,105-121 and 126-131 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

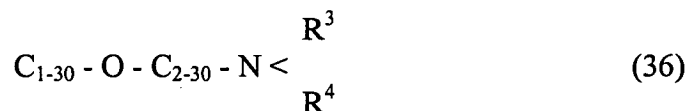
Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/29/03, 3/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-4,7-34,37-44,46-102,105-122 and 126-131 are pending in this application which is a continuation-in-part of SN 09/926,521, which was filed under 35 USC 371 as the national stage application of PCT/US01/16550, filed May 21, 2001, which claims the benefit under 35 USC 119(e) of US Provisional Applications No. 60/206,628 (May 24, 2000), 60/205,524 (May 19, 2000), 60/273,234 (March 2, 2001), and 60/274,368 (March 8, 2001).

Applicants' claims are drawn to aqueous pesticidal microemulsion compositions comprising a water soluble pesticide, surfactant, and a compound which affects cell membrane permeability. The claims were previously grouped for restriction under 35 U.S.C. 121 in three groups: I. Pesticidal compositions; II. Herbicidal compositions; III. Glyphosate compositions and methods. In the response filed June 26, 2003, applicants elected the invention of Group III, glyphosate compositions and methods of use, and the species comprising the potassium salt of glyphosate and the etheramine surfactant of formula 36:



wherein R^3 and R^4 are H, C_{1-30} , or $-(\text{C}_{2-4}\text{-O})_{1-50} - \text{H}/\text{C}_{1-4}$.

Applicants have now amended the claims such that there are two groups of aqueous compositions comprising a water soluble pesticide, surfactant system, and a stabilizer which is:

1. Alkylamine or quaternary ammonium salts thereof selected from: Dimethylcocoamine, hexylamine, dimethylhexylamine, octylamine, dimethyloctylamine, dodecyltrimethylamide, C_{4-8} trialkylamines (independent claims 1, 31, and 101).
2. alkyl or aryl amine having not more than 10 EO units in a cationic surfactant:stabilizer ratio of 1.5:1 to about 6:1 (independent claims 41, 65, 81).

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The restriction will now be handle simply as an election of species, rather than a restriction between groups, with the elected species being the herbicide glyphosate as the pesticidal agent, and the cationic alkyletheramine surfactant for formula 36 (above). Applicants failed to elect a specific stabilizer, thus any of the stabilizer compounds in groups 1 or 2 above is taken as an obvious variant for all stabilizers. Octylamine appears to be the preferred stabilizer (see new claims 126-131).

Claims 1-4, 7-26, 28-34, 37-44, 46-63, 65-79, 81-102, 105-121, 126-131 have now been examined only insofar as they read on the elected species. Claims 27, 64, 80, and 122 have been withdrawn from consideration as being drawn to non-elected species.

Again, upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 31, and 101 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The stabilizer compounds are described as being amines; however, one of the recited compounds (dodecyltrimethylamide) is an amide, rather than an amine.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-26, 28-34, 37-44, 46-63, 65-79, 81-102, 105-121, 126-131 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Jimoh (US 6,369,001), Wright et al (US 5,750,468), Maier et al (US 6,667,276), and Okano et al (US 6,030,923).

Jimoh, again, teaches microemulsion herbicidal compositions comprising a water soluble herbicide, an oil soluble graminicide (cyclohexenone or aryloxyphenoxypropionate), a water immiscible organic solvent, an emulsifying system comprising a tertiary amine surfactant, a nonionic dispersant, and an optional chloride stabilizer (abstract). Advantages of microemulsions include their ability to remain homogeneous without agitation for long periods of time; thus they may be handled much like a simple aqueous solution (col 4, lines 33-40). The water soluble herbicide is preferably a salt of glyphosate, with the potassium salt being one of those disclosed (col 3, lines 20-34; col 9, lines 41-56); the examples use the IPA (isopropylamine) or MEA (monoethanolamine) salts. Several conventional organic solvents are disclosed in column 8. The tertiary amine surfactants are disclosed as also having the ability to enhance the herbicidal effectiveness of the glyphosate composition (col 10, lines 24-33). The tertiary amines are preferably selected from polyoxyethylene (2-20) tertiary alkylamines and alkyletheramines, with illustrative alkyletheramines being those disclosed in Wright et al, discussed next (col 10, lines 53-66). The compositions may further comprise a stabilizing

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chloride component which, in addition to HCL, alkali metal chlorides, and ammonium chloride, may be low molecular weight organic ammonium chlorides and quaternary ammonium chloride surfactants (abstract; column 11, lines 25+); exemplified stabilizers are benzalkonium chloride and ammonium chloride.

Wright et al, again, teach glyphosate salt compositions comprising alkyletheramines, alkylether ammonium salts, or alkyletheramine oxides (abstract). The glyphosate salt may be any of the conventional salts including the potassium salt (col 5, lines 1-16). The tertiary alkyletheramine surfactants encompass those claimed herein; see col 6, lines 11-28.

Maier et al teach liquid compositions such as microemulsions comprising water soluble active agents such as glyphosate in combination with organic solvents and a surfactant system comprising acidic phosphoric esters and basic cosurfactants (abstract) such as N-alkylamines including hexylamine and n-octylamine (col 4, lines 19-25). A microemulsion glyphosate/octylamine composition is provided as example XI (Table 2).

Okano et al teach liquid agricultural compositions comprising a water soluble active agent, a cationic surfactant, and an acid salt of an amine (abstract). Inventive products 1, 2, and 3 in Table 1 describe transparent compositions comprising glyphosate in combination with polyethoxylated ammonium chloride surfactants and octylamine hydrochloride and dimethyldecylamine hydrochloride.

One of ordinary skill in the art would be motivated to combine these references because the tertiary alkyletheramines of Wright et al are explicitly disclose in Jimoh as being included in the tertiary amine surfactants contemplated therein for stabilizing the microemulsion compositions. Maier et al and Okano et al each disclose the utility of formulating water soluble

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agriculturally active agents such as glyphosate with amine and/or quaternary ammonium surfactants to improve the stability of multiphase formulations as taught in Jimoh.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined the potassium salt of glyphosate, an organic solvent, and a polyalkoxylated alkyletheramine surfactant because each of these components are disclosed in the microemulsion compositions of Jimoh, which further contain an additional oil soluble herbicide. Okano et al and Maier further disclose the stability enhancing effect of adding alkylamines or alkylamine hydrochlorides to liquid agricultural compositions comprising active agents such as glyphosate and cationic surfactants.

No unobvious or unexpected results are noted; no claim is allowed. No comparisons with the closest prior art are noted (presumably Jimoh, and the benzalkonium chloride or ammonium chloride stabilizers therein).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

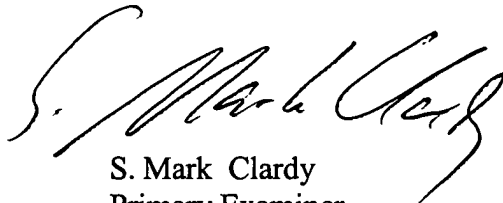
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on 571-272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'S. Mark Clardy', is positioned above the printed name and title.

S. Mark Clardy
Primary Examiner
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July 7, 2004